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Unresolved grief in combat veterans with PTSD

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Abstract

Clinicians have documented the importance of loss of comrades during combat as a significant source of distress. However, empirical studies have not focused on unresolved grief as a possible outcome of combat experiences. Consequently, unresolved grief has often been treated "after the fact" in the context of treating PTSD and depressive symptoms. In this study, we therefore, sought to demonstrate the prominence of combat-related grief-specific symptoms in a sample of Vietnam veterans being treated for PTSD. Our results indicated that indeed this sample of veterans reported high levels of grief-specific symptoms comparable to that found in bereaved individuals whose spouse had recently died, verifying its prominence as an important component of combat-related stress. Furthermore, grief severity was uniquely associated with losses of comrades during combat whereas no such relationship was shown for trauma or depressive symptoms. The latter finding suggested that in fact higher levels of grief stemmed from interpersonal losses during the war and was not simply an artifact of current general distress level.

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The unique conditions of the Vietnam War, fought mainly with guerrilla tactics, resulted in massive psychiatric casualties demanding focus on the postwar syndrome of combat veterans. Horowitz and Solomon (1975) were among the first to describe symptoms in Vietnam veterans including "nightmares, painful

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moods and emotional storms, direct or symbolic behavioral repetitions, and secondary signs such as impaired social relationships, aggressive and self-destructive behavior, and fear of loss of control over hostile impulses (p. 67)." Subsequent research with combat veterans focused on measuring behavioral symptoms of combat distress according to the diagnosis of PTSD, standardized in the DSM-III.

While clinicians have long recognized the importance of loss of comrades in the clinical presentation of combat veterans, and despite some albeit limited research findings showing that such losses are associated with elevated trauma symptoms, the prominence of grief-specific symptoms in Vietnam veterans with PTSD has been surprisingly overlooked. This oversight may be partly attributable to the salience of trauma symptoms in this population and past disagreement as to whether grief-specific symptoms constitute a unique symptom configuration that is distinct from trauma symptoms or other symptom constellations stemming from exposure to a highly stressful life event. Given the growing recognition in the bereavement literature on the importance of distinguishing grief-specific symptoms from anxiety and depression in assessing adjustment to interpersonal loss, however, there is good justification for investigating the co-morbidity of unresolved grief in Vietnam veterans with PTSD. Knowing whether elevated grief-specific symptoms were a prominent feature in this population could have important treatment implications.

1. Distinguishing grief from PTSD and depression

Grief-specific symptoms were initially identified as virtually indistinguishable from trauma symptoms (see Anderson, 1949; Lindemann, 1944). Despite the overlap in the features of trauma and grief-specific symptoms, Raphael and Martinek (1997) have outlined a number of important differences in the symptom patterns between the two. Bereaved persons are more likely to seek out rather than to avoid reminders of the deceased; more likely to feel sadness and longing rather than fear; more likely to feel anxiety generated by separation from the lost person rather than anxiety generated by threat; and more likely to experience intrusive thoughts and images of the lost person rather than of traumatic events. Raphael and Martinek have also noted that because a traumatic event often involves an interpersonal loss component, grief-specific symptoms may be superimposed upon trauma symptoms.

Grief-specific symptoms have similarly been distinguished from bereavement-related depression. In a longitudinal study of bereaved spouses, Jacobs et al. (1986) identified aspects of grief that were distinguishable from depression; these included loneliness and crying, numbness and disbelief, distractibility, and distressful yearning and searching. Horowitz et al. (1997) obtained comparable findings in which they identified similar cardinal symptoms unique to

complicated grief that distinguished it as a separate diagnostic category from major depression in a conjugally bereaved sample.

In a comprehensive series of factor analytic investigations in support of the discriminant validity of grief-specific symptoms, Prigerson et al. (1996) and Prigerson, Frank, Reynolds, Anderson, and Zubenko (1995) were able to distinguish a grief-specific symptom factor from bereavement-related depression and anxiety. Furthermore, they demonstrated that the severity of grief-specific symptoms, assessed at an earlier point after the death of a significant other, was a stronger predictor than concurrent depression of psychiatric adjustment at a later point after the death, thus providing support for its predictive validity and its clinical relevance.

2. Present study

Drawing on this literature, we sought to determine the prominence and distinct status of grief-specific symptoms from trauma and depressive symptoms in a sample of Vietnam veterans with PTSD. In knowing that losses of comrades during the war was a common experience for these individuals, it is fitting to determine to what extent elevated grief is an important aspect of their symptom presentation. Following the lead of Prigerson and her colleagues, this entailed first establishing that grief-specific symptoms could be distinguished from PTSD symptoms and depression in this sample of veterans. Once having established that grief-specific symptoms constitute a unique symptom configuration, it would then be possible to determine the severity of grief-specific symptoms in this sample relative to civilian samples involving losses of significant attachments. Finally, we examined the relationship between grief-specific symptoms and experiences in Vietnam that are assumed to precipitate more severe and protracted grief; specifically, the strength of the attachment ties to fellow comrades (Bugen, 1977; van der Kolk, 1985) and the number of losses of comrades during combat (Rando, 1993). Demonstrating this link in a population of combat veterans would indeed confirm that higher reported levels of grief were an outcome of actual experiences in Vietnam and not simply an artifact of current levels of distress.

3. Method

3.1. Participants

Participants were 114 male Vietnam-era combat veterans admitted to the PTSD inpatient rehabilitation unit at the Palo Alto Veterans Administration Health Care Service for treatment of PTSD. The mean age of these veterans was 50.85 years at the time of interview. The mean age when they experienced their

Table 1				
Demographics	of Inpatient	Veteran	Study	sample

Participant characteristics	Mean	S.D.
Age at time of interview	50.85	3.83
Age at time of loss	20.17	2.98
Education	13.4	2.60
Race	Number	
Black	14	
Hispanic	19	
Native American	8	
White	67	
Other/mixed	2	
Unreported	4	
Religion	Number	
Buddhist	3	
Protestant	41	
Catholic	45	
Jewish	1	
Other religions ^a	13	
No religious preference	7	
Unreported	4	

^a Other religions included "Christian", B'hai, Mormon, "A.M.E.".

combat loss was at 20.17 years. Demographics of the sample are summarized in Table 1.

3.2. Procedure

Participants were recruited in the order they came in to the treatment program. Upon agreeing to participate and signing a consent form, they were administered a set of instruments that included measures of PTSD, depression, and grief-specific symptoms as well as measures addressing attachment to and losses of comrades during the Vietnam war.

3.3. Measures

3.3.1. Texas Revised Inventory of Grief (TRIG)

The TRIG (Faschingbauer, 1981) is a widely used measure of grief-specific symptoms made up of a "past feelings" retrospective component consisting of items enquiring about bereaved individuals' experience at the time of the death and a "present feelings" component consisting of 13 items addressing extent of current grief. Only the "present feelings" component was used in the analysis. Veterans were asked to focus on their relationships to friends lost in combat in answering the TRIG. Prior support for its discriminant validity was shown with

respect to sex differences, time since the death, and relation to the deceased (Faschingbauer, 1981). Futterman (personal communication, 1997) identified three subscales in the Present Feelings scale. These consisted of a 3-item Acceptance subscale ("I cannot accept the loss"; Cronbach's alpha of .75), a 4-item Thoughts subscale ("I am pre-occupied with thoughts of the person who died"; Cronbach's alpha of .80), and a 3-item Distress subscale ("I still want to cry if I think of the person who died"; Cronbach's alpha of .70). Participants' TRIG subscale scores were used in the analyses.

3.3.2. Core Bereavement Items (CBI)

The CBI (Middleton, Burnett, Raphael, & Martinek, 1996) measures the frequency and intensity of current grief symptoms. A number of the items on the CBI are similar to those with the highest loadings on an unresolved grief factor identified by Prigerson et al. (1995, 1996) factor analytic study distinguishing maladaptive grief-specific symptoms from depression and anxiety. Burnett, Middleton, Raphael, and Martinek (1997) identified three subscales in the CBI: Images and Thoughts (Cronbach's alpha of .88), Acute Separation (Cronbach's alpha of .83), and Grief (Cronbach's alpha of .89). These three subscale scores were used in the analyses. The CBI and TRIG together capture a wide range of grief-specific symptoms and thereby provide for a comprehensive assessment of their prominence in this sample of veterans.

3.3.3. Mississippi Scale for Combat-Related Post-Traumatic Stress Disorder

The National Vietnam Veterans Readjustment Study (NVVRS), (Kulka et al., 1988) has ranked the Mississippi Scale first of PTSD diagnostic measures in ability to correctly classify true and non-true cases from an entire sample. This measure consists of the following subscales (King & King, 1994): Reexperiencing and Situational Avoidance (Cronbach's alpha of .79), Withdrawal and Numbing (Cronbach's alpha of .76), Self-Persecution (Cronbach's alpha of .79), and Arousal (Cronbach's alpha of .56). These four subscales were used in the analyses.

3.3.4. Beck Depression Inventory (BDI)

The BDI (Beck, Steer, & Garbin, 1988) is a widely used measure of depression derived from clinical observations about attitudes and symptoms displayed frequently by depressed psychiatric patients and infrequently by non-depressed psychiatric patients. The following three subscales were identified in the BDI (Tanaka & Huba, 1984): Negative Attitude (Cronbach's alpha of .88), Motivation (Cronbach's alpha of .88), and Self-Image (Cronbach's alpha of .42). These three subscales were used in the analyses.

3.3.5. Combat experiences

Supplementary items were included addressing extent of attachment to comrades in the unit and number of losses in combat during the war. These are

known in the bereavement literature to have an impact on the severity of grief response. Each of the items was answered on a 5-point scale ranging from 0 (not at all) to 4 (extremely true). The first item assessed attachment to men in the unit, "I identified with the men in my unit and felt close to them", taken from van der Kolk's (1985) assessment of adolescent soldiers' vulnerability to PTSD and loss. The second item addressed the extent to which the veteran had a close relationship with a buddy, "I had a close relationship with a buddy in my combat unit during my tour of duty", a potentially important predictor of grief (Bugen, 1977). The final item addressed the number of losses "I experienced the losses of many friends during combat". The importance of the impact of multiple losses on grief symptoms, while never addressed in a veteran sample, has been addressed in recent AIDS-related research, by Neugebauer et al. (1992) and Summers et al. (1995).

4. Results

4.1. Grief symptoms as distinct from PTSD and depression

In order to determine whether grief symptoms could be distinguished from PTSD and depression, a principle components analysis was conducted on the grief, PTSD, and depression subscale scores. This analysis was performed on the subscale scores, as opposed to the individual items, to ensure that the criterion of having at least four to five participants per variable was met (Hair, Anderson, Tatham, & Black, 1992). The basis for selecting factors was made according to the following criteria: (a) a latent root criterion was used to select significant factors with an eigenvalue greater than one; (b) a Scree Test was performed to ascertain the maximum number of significant factors possible (Hair et al., 1992).

The principal components analysis yielded a three-factor solution. A varimax rotation was performed in order to enhance the interpretability of the factor pattern. The results are summarized in Table 2. As expected, the grief-specific symptom subscales were clearly distinguished from the PTSD and depression subscales. In this final rotated solution, grief-specific symptoms accounted for 29.6% of the actual variance, PTSD accounted for 15.1%, and depression explained 14.2% of the variance. The results of the principal components analysis, therefore, demonstrate that the sample of combat veterans with a diagnosis of PTSD clearly distinguish grief-specific symptoms from PTSD and depression.

4.2. Severity of grief-specific symptoms

In having established that this sample of veterans were able to distinguish grief-specific symptoms from PTSD and depression on the self-report symptom measures, it was important to determine the severity of grief-specific symptoms in this sample of veterans with PTSD by comparing their scores with other samples of

Table 2					
Rotated	Component	Matrix	of	Symptom	Subscales

	Components			
	1 (grief)	2 (PTSD)	3 (depression)	
Accept	0.801	0.155	0.081	
Distress	0.773	0.238	-0.052	
Thoughts	0.864	0.176	0.099	
Grief	0.784	0.167	0.163	
Images and Thoughts	0.791	0.215	0.239	
Separation	0.794	0.073	0.297	
Arousal	0.184	0.762	0.177	
Re-experiencing	0.368	0.599	0.453	
Self-Persecution	0.368	0.540	0.385	
Withdrawal	0.122	0.859	0.046	
Self-Image	0.152	0.067	0.840	
Motivate	0.075	0.219	0.846	
Negative Attitude	0.205	0.561	0.652	

bereaved individuals. Indeed, the veterans' mean CBI and TRIG scores were striking considering that approximately 30 years had passed since these combat losses were experienced. The veterans' mean score of 48.90 on the TRIG was higher than a mean score of 47.39 in a midlife conjugal bereavement sample whose spouses had died within the previous 6 months (Field & Horowitz, 1998) and a mean score of 45.60 for an elderly conjugally bereaved sample whose spouses had died 3–6 months ago (Prigerson et al., 1995). The fact that 70% of the veterans had higher TRIG scores than the average scores for these conjugally bereaved samples attests to the degree to which these veterans continue to experience grief over interpersonal losses that occurred over 30 years ago. Because the death of a spouse is known to be one of the most stressful life events that an individual is likely to encounter (Holmes & Rahe, 1967), the results for the TRIG are indeed remarkable. A similar result was obtained for the CBI; the veterans' mean score of 26.57 on the CBI was comparable to a normative sample who had a mean CBI score of 25.97 assessed at 1 month post loss (Burnett et al., 1997).

4.3. Symptoms predicting attachments and losses during war

A multiple regression analysis was conducted to determine the unique relationship between each of the symptom measures and the extent of attachment to men in the unit during the war. This involved entering the total grief, trauma, and depression measures scores into the regression analysis simultaneously in the prediction of the attachment to men in unit measure. A significant overall model effect was found, $r^2 = .07$ (adjusted $r^2 = .05$), F(3, 110) = 2.80, p < .05. Grief symptoms were significantly positively associated with attachment (t = 2.79, p < .01) whereas no relationship was found for trauma symptoms (t = -0.85, ns) or depression (t = .18, ns) with attachment. The results are summarized in Table 3A.

Regression analysis of symptom measures predicting attachment to men in unit				
Symptom measure	В	S.E. <i>B</i>	β	
Grief symptoms	.43	.15	.31*	
Trauma symptoms	01	.01	12	
Depression	.003	.02	.02	

Table 3A Regression analysis of symptom measures predicting attachment to men in unit

Note. n = 114; $r^2 = .07$ (p's < .05). * p's < .05.

Table 3B Regression analysis of symptom measures predicting closeness to a buddy

Symptom measure	В	S.E. <i>B</i>	β
Grief symptoms	.45	.14	.35**
Trauma symptoms	01	.01	17
Depression	.01	.02	.10

Note. n = 114; $r^2 = .10$ (p's < .01).

** p's < .01.

Table 3C Regression analysis of symptom measures predicting number of losses

Symptom measure	В	S.E. <i>B</i>	β
Grief symptoms	.54	.12	.44***
Trauma symptoms	.001	.01	.01
Depression	.01	.01	.07

Note. n = 114; $r^2 = .23$ (p's < .001).

*** p's < .001.

The similar regression analysis was conducted for the relationship with a buddy. A significant overall model effect was found, $r^2 = .10$ (adjusted $r^2 = .07$), F(3, 110) = 3.90, p < .01. Grief symptoms were significantly positively associated with combat losses (t = 3.14, p < .001) whereas no significant association was found for trauma symptoms (t = -1.27, ns) or for depression (t = .77, ns) with combat losses. The results are summarized in Table 3B.

A final regression analysis was conducted for the combat losses measure. A significant overall model effect was found, $r^2 = .23$ (adjusted $r^2 = .21$), F(3, 110) = 10.57, p < .001. Grief symptoms were significantly positively associated with combat losses (t = 4.35, p < .001) whereas no significant was found for trauma symptoms (t = .09, ns) or for depression (t = .58, ns) with combat losses. The results are summarized in Table 3C.

5. Discussion

The results provided support for the existence of grief-specific symptoms as distinct from the other war trauma-related symptoms in a sample of combat

veterans with PTSD. The principal components analysis verified that these veterans were able to distinguish their levels of grief from closely associated trauma and depressive symptoms. These findings are in keeping with results in the bereavement literature demonstrating the presence of grief-specific symptoms as a distinct configuration from bereavement-related depressive and anxiety symptomatology. The present study results thus extend these previous findings involving civilian groups to a combat veteran population. Despite the fact that our sample of veterans was composed of individuals with a diagnosis of PTSD, and were thus likely to have a restricted range of symptom severity, grief symptoms nevertheless could be distinguished from the other closely affiliated symptoms. In this regard, the results offer compelling support for bereavement researchers and practitioners who advocate the importance of recognizing unresolved grief as a separate diagnostic category from anxiety and depressive disorders.

The high levels of grief-specific symptoms reported by the participants in the present study attest to their prominence and are consistent with the observations of clinicians who initially suggested that unresolved grief played a significant role in the distress suffered by combat veterans. The results are also in keeping with research findings on traumatic loss such of those of Green, Grace, and Gleser (1985) showing that interpersonal loss as well as life threat and injury contributed to stress in the aftermath of a nightclub fire, and those of Pynoos, Nader, Frederick, Gonda, and Stuber (1987) who identified traumatic grief symptoms as distinct from PTSD in children following exposure to a sniper incident.

As confirmation that grief-specific symptoms indeed stemmed from particular experiences involving attachment to and loss of comrades during the time of the Vietnam war, grief-specific symptoms were uniquely related to such experiences whereas this was not true for the PTSD and depression measures. Given the severity of the grief symptoms in this veterans' sample and knowing that this loss event occurred more than 30 years ago attests to the chronicity of elevated grief in those who suffered losses in the war. It suggests that unresolved grief will endure over time if it is not addressed by clinical intervention in a significant proportion of Vietnam veterans who continue to show the psychological effects of combat.

There are a number of limitations that have bearing of what conclusions might be drawn from the results. One limitation is the retrospective nature of the measure assessing experiences of loss during combat. In knowing that these memories pertain to a time of life that was more than 30 years ago calls into question the veridicality of these memories. To the extent that current levels of symptomatology influence retrospective reporting of exposure to stressors, it might be argued that the significant relationship found between grief symptoms and reported loss of important attachments with comrades is simply attributable to memory retrieval effects of current levels of symptomatology. However, this explanation cannot address why the symptom measures differ in their relation to the combat experience measures. Furthermore, although current level of distress is known to have some impact on retrospectively reported stressor exposure, there

is evidence to suggest that its impact is limited and cannot fully explain the symptom and stressor exposure association (King et al., 2000).

A second limitation pertains to the generalizability of the results. Because the present study sample included only veterans with a current diagnosis of PTSD, it would be important to replicate the findings on a sample of veterans without PTSD.

By measuring unresolved grief symptoms as a unique and continuing syndrome in combat veterans more than 30 years after their losses occurred, this study underscores the importance of recognizing the bonds of soldiers in wartime and of developing treatment protocols that actively address feelings and cognitions related to their losses, including guilt and painful emotions that may continue to impact their lives. Treating the symptoms of unresolved grief may be as salient as treating the fear-based symptoms associated with PTSD.

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